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ARIZONA CORPORATION COMMISSION UNION PACIFIC'S RESPONSES TO FIRST SET OF DATA REQUESTS DOCKET NO. RR-03639A-07-0494 83RD AVENUE, RIO BRAVO ROAD, and RALSTON ROAD in Pinal County, AZ SEPTEMBER 21, 2007

CW 1.1 Provide Average Daily Traffic Counts ("ADT") for each of the three locations.

Response:

Crossing	Current ADT	Source
83 rd Avenue	200	Verbally from Vicki Stewart
		Maricopa County on 2/21/07
Rio Bravo Road	400	Verbally from John Kraft,
		Pinal County on 2/21/07
Ralston Road	523(2005)	CAAG 2005 Traffic Count
		data provided by John Kraft

Source:

Vicki Stewart @ Maricopa County, 2901 W. Durango Street, Phoenix,

AZ 85009, (602) 506-1597.

John Kraft @ Pinal County, PO Box 727, Florence, AZ 85232, (520)

866-6480.

CW 1.2 Please describe the current Level of Service ("LOS") at each intersection.

Response:

Union Pacific believes that the level of service analysis is irrelevant because that analysis concerns mobility rather than safety. In addition, Union Pacific must rely on information provided by others to calculate the level of service. With those caveats, Union Pacific responds as follows:

Crossing	LOS (August 2007)	
83 rd Avenue	Northbound (LOS=A), Southbound (LOS=A)	
Rio Bravo Road	Northbound (LOS=A), Southbound (LOS=A)	
Ralston Road	Northbound (LOS=A), Southbound (LOS=A)	

Source:

Traffic level of service calculations were performed using Synchro and SimTraffic programs under the direction of Heidi Schneider with HDR Engineering, Inc at 5210 E Williams Circle, Suite 503, Tucson, AZ 85711, (520) 584-3600. The train delay times utilized in the analysis were provided by Tom Domres, with TKDA at 750 Shoreline Drive, Suite 100, Aurora, IL 60504, (630) 499-4110 via Union Pacific.

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Arizona Corporation Commission DOCKETED

BECEINED Page 1 of 6

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CW 1.3 Provide any traffic studies done by the road authorities for each area.

Response:

1) ADOT has a 2007 study for the Maricopa Road / John Wayne Hwy (SR 347) Feasibility Study (ADOT TRACS #347 PN 173 H7007) which included future projections for Rio Bravo and Ralston Roads. ADOT Contact is Tim Wilson.

2) 2006 City of Maricopa SATS (Small Area Transportation Study)

Final Report is available on the internet site http://www.cityofmaricopa.net/PWDept.htm

CW 1.4 Provide distances in miles to the next public crossing on either side of the proposed project location. Are any of these grade separations?

Response:

Union Pacific believes that the last question in CW 1.4 raises an issue that is irrelevant, namely, whether either of the next public crossings is a grade separation. With that caveat, Union Pacific responds as follows:

Crossing	TO THE WEST	TO THE EAST	
83 rd Avenue	29.6 miles to I-8 (BUS) 5.0 miles to Rio Br		
Rio Bravo Road	5.0 miles to 83 rd Ave	2.04 miles to Ralston Rd	
Ralston Road	2.04 miles to Rio Bravo Rd	5.0 miles to SR 347	

The only adjacent crossing that is a grade separation is at I-8 (BUS) west of 83rd Ave.

Source:

HDR's use of the Union Pacific Straight-line Diagrams and www.MapQuest.com.

CW 1.5 How and why was grade separation not decided on at this time? Please provide any studies that were done to support these answers.

Response:

Union Pacific understands that whether a grade separation is needed is primarily a question of mobility and convenience for vehicular traffic on the roadway, not safety. That is because an at-grade crossing can be safe without constructing a grade separation and eliminating the grade crossing. Based on this understanding, Union Pacific believes the question of whether a grade separation is needed is irrelevant to Union Pacific's application to add a second mainline track at these grade crossings. With that caveat, Union Pacific responds as follows:

The diagnostic team that evaluated the three crossings involved in this application concluded the crossings were safe without constructing grade separations. That conclusion is supported by the fact that the Federal Highway Administration authorizes the use of gates and lights at multiple-track grade crossings as proposed in this

application. Union Pacific is not aware of any studies specific to the crossings involved in this application.

CW 1.6 If this crossing was grade separated, provide a cost estimate of the project.

Response:

Again, Union Pacific understands that whether a grade separation is needed is primarily a question of mobility and convenience for vehicular traffic on the roadway, not safety. That is because an at-grade crossing can be safe without constructing a grade separation and eliminating the grade crossing. Based on this understanding, Union Pacific believes the question of whether a grade separation is needed is irrelevant to Union Pacific's application to add a second mainline track at these grade crossings. In addition, any attempt to estimate the cost to construct a grade separation would be speculative in the absence of a detailed study of the particular crossing in question. With those caveats, Union Pacific responds as follows:

In connection with its recent application to upgrade the crossing of Union Pacific tracks at the intersection of Power and Pecos Roads, RR-03639A-07-0398, the Town of Gilbert estimated that a grade separation at that location would cost \$22 million. Depending on the particular crossing involved, a reasonable range for the costs of constructing a grade separation would be between \$20 million and \$40 million.

CW 1.7 Please describe what the surrounding areas are zoned for near this intersection. i.e. Are there going to be new housing developments, industrial parks, etc.?

Response:

Union Pacific believes that the second part of CW 1.7 calls for speculation as to whether new housing developments, industrial parks, or other developments will occur in the future. In addition, Union Pacific does not have access to such information, but instead must rely on information provided by others. With those caveats, Union Pacific responds as follows:

The zoning in the area of these crossings is shown on the City of Maricopa Draft Zoning Map. 83rd Ave has rural land use; Rio Bravo Road has rural and industrial; Ralston Road has rural and industrial with some institutional land use. The zoning maps show future residential and industrial land uses near these three crossings. However, the City of Maricopa public works department and Central Arizona Association of Governments planning department can better answer the question of future developments.

Source:

The Central Arizona Association of Governments Planning Department(CAAG) <u>http://www.caagcentral.org/GIS/gishome.html</u> CW 1.8 Please supply the following: number of daily train movements through the crossing, speed of the trains, and the type of movements being made (i.e. thru freight or switching). Is this a passenger train route?

Response: The movements are the same for these three crossings.

Train Count: 48 total average trains per day (46 freight, 2 passenger)
Train Speed: 79 mph passenger / 70 mph freight
Thru Freight/Switching Moves: All moves through these three crossings are
thru freight. (According to MTO Rob Henderson there are no switching
moves at these crossings.)

These crossings are used by Amtrak twice per day, three times per week.

Source: Union Pacific's Manager of Train Operations, Rob Henderson.

CW 1.9 Please provide the names and locations of all schools (elementary, junior high and high school) within the area of the crossing.

Response:

Mobile Elementary @ 42798 South 99th Avenue, Mobile, Arizona 85239 Maricopa HS @ 45012 W Honeycutt Ave, Maricopa, AZ 85239 Maricopa Wells MS @ 45725 W Honeycutt Ave, Maricopa, AZ 85239 Santa Cruz Elementary@ 45012 W Honeycutt Ave, Maricopa, AZ 85239 Maricopa Elementary @ 18150 N Alterra Pkwy, Maricopa, AZ 85239 Pima Butte Elementary @ 42202 W Rancho El Dorado, Maricopa, AZ 85239 Santa Rosa Elementary @ 21400 N Santa Rosa Drive, Maricopa, AZ 85239

Source:

Julie Tiemann, bus driver for Mobile Elementary School District No. 86, located at 42798 South 99th Avenue, Mobile, Arizona 85239, (520) 384-8855.

Sabrina Blanton, in transportation for the Maricopa County School District, located at 45012 W. Honeycutt Avenue, Maricopa, Arizona 85239, (520) 568-5120.

CW 1.10 Please provide school bus route information concerning the crossing, including the number of times a day a school bus crosses this crossing.

Response: The buses for all the schools cross 83rd Ave four (4) times per day and

Rio Bravo Road six (6) times per day. Ralston Road is not used.

Source: Julie Tiemann, bus driver for Mobile Elementary School District No. 86,

located at 42798 South 99th Avenue, Mobile, Arizona 85239, (520) 384-

8855.

Sabrina Blanton, in transportation for the Maricopa County School District, located at 45012 W. Honeycutt Avenue, Maricopa, Arizona 85239, (520) 568-5120.

CW 1.11

Please provide information about any hospitals in the area and whether the crossing is used extensively by emergency service vehicles.

Response:

The nearest hospitals to these crossings are either Chandler Regional Hospital (approximately 30 minutes away north) or Casa Grande Hospital (approximately 45 minutes away east). To our knowledge, none of these crossings are used extensively by emergency service vehicles.

Source:

Jennifer Crumbliss, Senior Transportation Engineer with HDR, Engineering, Inc. at 8404 Indian Hills Drive, Omaha, NE 68114, (402) 926-7049 used the internet site www.GoggleEarth.com. Also, Juan Cruz, Roadway Designer with HDR in Tucson, physically verified hospital and school locations on June 14, 2007.

CW 1.12 Please provide the total cost of improvements to each crossing.

Response:

Crossing	Signal	Crossing Surface	Total
83 rd Avenue	\$ 216,157	\$ 23,160	\$ 239,317
Rio Bravo Road	\$ 226,245	\$ 30,880	\$ 257,125
Ralston Road	\$ 226,450	\$ 30,880	\$ 257,330

Source:

Union Pacific's Engineering.

ORIGINAL AND THIRTEEN COPIES of the foregoing filed this 21st day of September, 2007, with:

Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007

Page 5 of 6

COPY of the foregoing hand-delivered this 21st day of September, 2007, to:

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